R E P O R T R E S U M E S

ED 003 224 56

THE EFFECTS OF SELECTED FILM AND COUNSELING EXPERIENCES ON CAPABLE GIRLS' ATTITUDES TOWARD COLLEGE.

BY- SULLIVAN, HOWARD J.
OREGON STATE SYSTEM OF HIGHER EDUCATION, MONMOUTH

REPORT NUMBER NDEA-VIIA-1159 PUB DATE 30 SEP 64
REPORT NUMBER R-31
GRANT OEG-7 47-0000-226
EDRS PRICE MF-$0.09 HC-$2.32 58P.

DESCRIPTORS- *COUNSELING, EDUCATIONAL COUNSELING, GROUP COUNSELING, INDIVIDUAL COUNSELING, *FILMS, CHANGING ATTITUDES, DROPOUT ATTITUDES, STUDENT ATTITUDES, *FEMALES, *SENIOR HIGH SCHOOLS, COLLEGE PLANNING, *ABLE STUDENTS, MONMOUTH, OREGON

A SAMPLE OF APPROXIMATELY 200 HIGH-ABILITY GIRLS WHO INDICATED THAT THEY WERE UNLIKELY TO ATTEND COLLEGE, WERE SCREENED FROM APPROXIMATELY 2,000 SENIOR GIRLS IN 8 HIGH SCHOOLS. THE EXPERIMENTAL TREATMENTS EMPLOYED WERE (1) A COUNSELING INTERVIEW, (2) AN INTERVIEW PLUS THE SHOWING OF A FILM DESIGNED TO CHANGE ATTITUDES TOWARD COLLEGE, AND (3) TWO SHOWINGS OF THE FILM. SEVERAL VARIATIONS OF THE TREATMENT GROUPS WERE MADE, AND A NO-TREATMENT CONTROL GROUP WAS SELECTED. CRITERION MEASURES CONSISTED OF (1) ATTITUDES TOWARD COLLEGE, AS ASSESSED BY A QUESTIONNAIRE, AND (2) APPLICATIONS FOR ADMISSION FOLLOWING THE TREATMENT PHASE. IT WAS DISCOVERED THAT--(1) GIRLS WHO INDICATED THAT LACK OF MONEY WAS THEIR PRIMARY DETERRENT WERE MORE FAVORABLE IN ATTITUDE THAN THOSE WHO INDICATED THAT MOTIVATIONAL FACTORS WERE THE CHIEF OBSTACLE, AND APPLIED FOR COLLEGE IN GREATER NUMBERS, AND (2) GIRLS WITH LOW-MOTIVATION WHO SAW THE FILM AND WERE INDIVIDUALLY COUNSELED SCORED GREATER ON THE ATTITUDE SCALE THAN THOSE WHO WERE GROUP-COUNSELED. ACTUAL APPLICATIONS FOR ADMISSION WERE NOT SIGNIFICANTLY DIFFERENT. IMPLICATIONS ARE DISCUSSED, ALONG WITH OTHER FINDINGS. (JC)

ED003224

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

1159

THE EFFECTS OF SELECTED FILM AND COUNSELING EXPERIENCES ON CAPABLE GIRLS' ATTITUDES TOWARD COLLEGE

Howard J. Sullivan

Final Report
Title VII Project Number 1159
National Defense Education Act of 1958
Grant Number 7-47-0000-226

OREGON STATE SYSTEM OF HIGHER EDUCATION

R-31

The Effects of Selected Film and Counseling Experiences on Capable Girls' Attitudes Toward College

Howard J. Sullivan

Final Report
Title VII Project Number 1159
National Defense Education Act of 1958
Grant Number 7-47-0000-226

September 30, 1964

Teaching Research Division
Oregon State System of Higher Education
Monmouth, Oregon

The Research Reported Herein was
Supported by a Grant from the
U. S. Department of Health, Education & Welfare
Office of Education

Acknowledgments

This study required the cooperation of many individuals. The writer wishes to express special appreciation to the following people:

Mrs. Eleanor Ellis and Mr. Del Ramsdell, South Salem High School; Mrs. Amelia Auld, Madison High School; Mr. Stewart Leek, North Salem High School; Mrs. Nancy Russell, Cleveland High School; Mr. Paul Muno and Mrs. Thelma Ferriss, Milwaukie High School; Mr. Stanley Miller and Mr. Jud Taylor, Hillsboro High School; Mr. Art Keith, David Douglas High School; and Mrs. Ethel Folden, Clackamas High School. These school personnel officers gave a considerable amount of time to the project, and their cooperation and planning were essential to its completion.

Dr. Lloyd Lovell, University of Oregon, for his assistance in organizing the project.

Dr. Jack Edling, Dr. Bert Kersh, and Dr. James Beaird, Teaching Research Division, Oregon State System of Higher Education, for their consultation and advice.

Dr. Walter Snyder, Oregon College of Education, who initially enlisted the cooperation of all participating school districts.

Table of Contents

		Page
List of Tables		iv
Abstract		v
Chapter I	Introduction	1
	Objectives	2
	Scope	3
Chapter II	Related Research	5
Chapter III	Methodology and Procedures	9
	Experimental Design	10
	Criterion Instruments	14
Chapter IV	Findings: Scale-Measured Attitudes	17
	Attitude Scores with Treatments Combined	17
	Attitude Scores by Primary Deterrent to College	20
	Individual and Group Counseling	22
	Utilization of the Film	23
Chapter V	Findings: Applications for Admission to College	25
	Applications by Primary Deterrent to College	27
	Individual and Group Counseling	29
	Serial Order of Presentation	30
	Attitude-Scale Scores and Applications for Admission	31
Chapter VI	Summary and Implications	33
Bibliography		37
Appendix		39

List of Tables

Table		Page
I	Percentage of Able High School Graduates Attending College	5
II	Schedule of Treatments and Testing	11
III	Mean College Questionnaire Scores by Treatment	18
IV	Analysis of Variance for Mean CQ Scores by Treatments and Schools	18
V	Mean Attitude-Scale Scores with Treatments Combined	19
VI	Analysis of Variance by Primary Deterrent to College and Treatments	21
VII	Mean CQ Scores by Treatment and Primary Deterrent	21
VIII	Mean Scores by Counseling Approach	22
IX	Mean Scores by Order of Presentation	24
X	College Application Plans by Treatment	26
XI	College Application Plans with Treatments Combined	26
XII	Applications by Primary Deterrent and Treatment	28
XIII	Chi-Square for Applications by Primary Deterrent	28
XIV	Applications by Counseling Approach	29
XV	Applications by Order of Presentation	30
XVI	Applications by Attitude-Scale Score	31

Abstract

The Effects of Selected Film and Counseling Experiences on Capable Girls' Attitudes Toward College. Monmouth, Oregon: Teaching Research Division, Oregon State System of Higher Education, September, 1964. 48 pp. (USOE Title VII, Project No. 1159)

Purpose: The principal objective was to attempt to determine the effects of several selected film and counseling experiences on the attitudes toward college of capable high school girls who indicate that they are unlikely to attend college. Secondary objectives included an evaluation of the effectiveness of several procedures for enhancing the influence of motion pictures designed to change attitudes.

Procedure: The sample was composed of 191 high-ability girls who were screened from approximately 2000 senior girls in eight metropolitan high schools. Each subject indicated on a preliminary questionnaire that she was unlikely to attend college and identified her primary deterrent (either low finances or low motivation for college). Several selection criteria were employed to insure that subjects would have a good chance of academic success in college.

The following experimental treatments were employed: (1) a counseling interview (either group or individual), (2) a group or individual interview plus a showing of a film designed to change attitudes toward college (either in film-counseling or counseling-film serial order), (3) two showings of the film. Including the specific variations of the above treatment categories, there were seven experimental groups and a no-treatment control group.

Criterion measures consisted of (1) attitudes toward college as assessed by the College Questionnaire (CQ), a fifty-item, 200-point Likert scale; and (2) applications for admission to college as reported on a questionnaire administered approximately four months after the treatment

phase. Analysis of variance, t-tests, and chi-square were employed to treat the data.

Results and Conclusions: (1) It was found that girls who indicated that lack of money was their primary deterrent to a college education held significantly (.001 level) more favorable scale-measured attitudes toward college than did those who indicated that motivational factors were their chief obstacle. The low-finance group also subsequently applied for college admission in significantly (.001) greater numbers. (2) Among low-motivation subjects only, the mean attitude-scale score for subjects who saw the film and were individually counseled was significantly (.02) greater than that of group-counseled subjects and several points higher than the mean of every other low-motivation group. There was little evidence, however, that any treatment actually influenced low-motivation subjects to apply for college admission. (3) Among low-finance subjects, the data revealed a consistent trend for students in the groups that were counseled (whether or not they saw the film) to apply for college admission in greater numbers than students in groups that were not counseled. Because of the small number of low-finance subjects who were not counseled, the difference in applications between counseled and non-counseled students could not be subjected to a valid statistical test. Therefore, the reliability of this difference is not known. (4) When treatment effects were analyzed for all treatment groups (rather than for the low-finance and low-motivation groups separately), mean scores on the CQ ranged from approximately 140 for the control and the group-counseling groups to about 150 for the film-plus-individual counseling group. These differences were not statistically significant nor was there a statistically significant difference in applications for college admission. (5) The mean gain in attitude-scale scores

for subjects who viewed the film twice was of approximately the same magnitude as the gain registered by subjects who viewed the film once in earlier research by Edling. The fact that the number of subjects in Edling's research was much larger than the number in the present investigation and the fact that Edling's groups were homogeneous with reference to selected personality characteristics may explain why gains in his research were statistically significant while gains in the present study were not. (6) No significant differences in criterion scores were attributable to the variable of serial order of presentation of the film and counseling interview. (7) Based upon the findings of the study, differentiated college-counseling procedures were recommended for low-finance and low-motivation students.

Chapter I

Introduction

Recent estimates indicate that each year between 120,000 and 200,000 high school graduates who have the ability to do successful college work fail to enter college (3,7). The failure of so many capable students to obtain a higher education has been a major factor in the serious shortage of highly-trained personnel in our society. In addition to this loss of trained manpower in terms of the material and physical needs of our country, many of these students may suffer a greater, albeit less tangible, personal loss because their lack of a college education may inhibit their chances of self-actualization.

Several studies within the past decade have clearly established that lack of motivation for more schooling is an important factor in the failure of capable high school graduates to attend college (19, 22, 26). Compared to his capable counterpart who attends college, the equally capable high school graduate who does not continue his formal education often receives considerably less social reinforcement for college, and he frequently comes from an environment in which the incentive for further education is never aroused. Capable individuals who are not motivated to attend college generally hold much less favorable attitudes toward college than college-bound students. The problem of motivating them to attend college, therefore, becomes in part a matter of modifying their attitudes toward college in a positive direction.

In some cases (e.g., 18, 19), the problem of motivating capable students to attend college has been faced by adopting widespread programs aimed at identifying high-ability students and encouraging them to continue their education. Many school districts lack the finances to sponsor

an elaborate program of this type, however. In other districts, the heavy demands placed upon school counselors by students who are planning to attend college may often cause them to neglect capable students who are not planning to continue their education. Thus, if a relatively inexpensive program of building more favorable attitudes toward college in capable non-college-bound students could be identified, this program could have considerable practical value in a large number of school districts.

Objectives

Two procedures were selected for use in this study in an attempt to identify a practical program of building more favorable attitudes toward college in capable high school senior girls who had indicated that they were unlikely to attend college. An experimental film developed in a recent study (5) for the purpose of attempting to modify capable non-college-bound students' attitudes toward college was one of two procedures that was employed. The second experience was a single counseling interview designed to complement the attitudinal effects of the film when the two were employed in combination. The particular treatments were not chosen in an attempt to provide ideal or optimum conditions for building positive attitudes toward college, but rather to investigate conditions which, because of their practicality and relative economy, could be adopted readily by large numbers of schools for use in an effective college-counseling program. The major purpose of the study, then, was to attempt to determine the effects of the selected film and counseling experiences on the attitudes toward college of capable high school senior girls who have indicated that they are unlikely to attend college.

This study raised a number of additional questions which could also be explored during its course and which have practical implications in

utilizing its results in future situations. These questions concerned the relative effectiveness of several different procedures: (1) group versus individual counseling, (2) a film-counseling approach compared to a counseling-film approach, and (3) a single showing of the film compared to two showings of the same film.

Thus, the secondary objective of the study was to determine the comparative effectiveness of the above listed procedures in building favorable attitudes toward college in the target group.

Scope

The study was carried out in eight public high schools in the state of Oregon. The eight schools included two in the Salem school district, two in the Portland school district, and four others from the Portland metropolitan area. These schools were selected primarily because their comparatively large enrollments indicated that they would provide an adequate number of potential subjects who met the selection criteria for this study. Senior class enrollments ranged from approximately 325 to 700 students. The decision to conduct the study exclusively with girls was made on the basis of evidence that, compared to capable boys, a much smaller percentage of able girls who graduate from high school actually attend college (see Table I in Chapter II).

There is some evidence (1, 5, 16) that students from large urban high schools have a stronger college orientation than do those from smaller or more rural schools. Also, because the sample is limited, the data from the present study may not be typical of students from other than large urban high schools. In general, then, the findings of this study should not be considered to be generally applicable to all high school student populations.

PRECEDING PAGE BLANK-NOT FILMED

Chapter II

Related Research

Table I summarizes the findings of several state and national surveys of the percentage of able high school graduates who attend college.

Table I

Percentage of Able High School Graduates Attending College

Date	Investigator	Area	N	Rank	Boys	Girls	Totals
1947	Phearman (18)	Iowa	2616	top 9%	68	60	64
1951	Hollinshead (12)	U.S.	..	top 25%	48	32	40*
1955	Daughtry (4)	Kans.	3386	top 25%	75	52	65
1955	Wright (26)	Ind.	3479	top 10%	85	64	73**
1957	Lowe (16)	Ill.	1117	top 25%	59	39	49
1957	Little (15)	Wisc.	..	top 15%	80	60	..
1960	Havighurst (8)	U.S.	..	top 25%	76	56	..

.. Not reported
* Based upon entire age cohort, rather than graduates only
** Includes all types of post-high school education

It can be observed that the figures vary widely by state. There is also some evidence to indicate that the more select the group in terms of ability, the greater the proportion who attend college. Studies by Wolfle (25) and the Educational Testing Service (3) support this observation. The nationwide figures for 1951 and 1960 reveal that the proportion of capable high school graduates who attended college increased markedly during this nine-year period. The data in Table I also indicate that among capable high school graduates the percentage of boys who attend college is considerably higher than the corresponding figure for girls.

The results of a number of studies (e.g., 3, 12, 26) reveal that lack of motivation and lack of money are the two major reasons why capable students do not attend college. These factors are in turn related to the

cultural and social level of the student's family, and they are often intermingled. A change in the student's motivation for college may, for example, also effect a change in his perception of his financial capabilities for college attendance. In general, however, there has been very little controlled research aimed at identifying practical methods of increasing motivation for college among capable students.

One technique of building more favorable attitudes toward college of a target group of high school boys and girls was developed by Edling (5). The target group was a sub-group of a group of students with I.Q. scores of 101 or higher who were unlikely to attend college. Test data from the DF Opinion Survey (DF) revealed that approximately twenty per cent of the girls in the larger group had high needs for attention and security. From the test data Edling prepared two motion picture films designed to change the attitudes of the target group. One film, Like Getting Out, was especially effective in changing the scale-measured attitudes of the target group of girls as well as those of the target group of boys. Changes in attitudes were assessed with the College Questionnaire (CQ: Appendix), a 200-point Likert scale. Subjects who viewed the film represented all ability levels and varying interest patterns on the DF, but gains registered by the small numbers of students in the target groups were much larger than those made by the remaining subjects.

Among a total of about 900 subjects who viewed Like Getting Out in Edling's study, approximately half were pretested, while the pretest means and variances of the non-pretested subjects were inferred to be the same as those of the pretested group. The total non-pretested group registered a mean gain of about six points over their inferred pretest mean on the 200-point attitude scale, and this gain was significant at the .01 level.

The pretested group also showed positive changes in attitude, but these changes were not statistically significant. From the total sample in Edling's study, pretested subjects scored slightly, but not significantly, lower on the post-test than did non-pretested subjects. Gains produced in the pretested group by viewing the film were not statistically significant, but the slightly larger gains of the non-pretested subjects were significant at the .01 level. Thus, while the pretest did not significantly depress post-test scores, it apparently depressed them to the extent that it obscured significant changes that were attributable to the influence of the film.

It should be noted here that the subjects in the present study were a select group and Edling did not report data on the effects of the film on a group with measured characteristics in common with the sample in the present study. However, pertinent information was available for the present research from Edling's raw data.

A study by Staudohar and Smith (21) provides evidence that procedures may be employed in combination with a film to enhance the film's effectiveness. These investigators found that each of three experimental groups that saw an attitudinal film and heard a supplementary lecture registered significantly (.01 level) greater changes in attitude than did the control group that also saw the movie but did not hear the supplementary lecture. While no other studies on the combined effects of a film and a second experience on attitudes could be located, several studies of human learning have found that a supplementary lecture or discussion which accompanies a film results in a significant increment in learning (11, 13, 17).

Another project which attempted to motivate capable students to attend college is reported by Plant (19). His report of the Southern

Project indicates that the financial help and intensive counseling made available to capable Negro students under the project motivated many of them to continue their education. Similarly, Cole (3) reports that conscious state-wide efforts by Iowa school personnel to motivate capable high school students to attend college have been partly responsible for the high percentage of college attendance by capable students in that state. Both the Southern Project and the Iowa program differed from the present study in that they commonly involved several (rather than just one) orientation and counseling sessions as part of the motivational strategy. Additional evidence that teacher and counselor encouragement may be important factors in influencing top students to attend college comes primarily from the subjective reports of several authors (2, 3, 19).

A brief summary of the studies that are reviewed in this chapter highlights certain information that is particularly relevant to the present research. Lack of motivation for college and lack of money are the primary reasons why capable girls fail to obtain a higher education. Information and encouragement provided by school counselors have reportedly been important factors in influencing top students to attend college, but there is no controlled research evidence on this issue. Of particular relevance is the fact that a single showing of the film employed in this study previously produced significant changes in students' scale-measured attitudes toward college. It should be noted, however, that these students were not a selected group with the same characteristics as the sample in the current research. Finally, there is evidence that an experience which is designed to complement the message of an attitudinal film may significantly enhance the film's effectiveness.

Chapter III

Methodology and Procedures

A total of 191 high school senior girls were selected for the present study by the procedure described below.

Between late October and early December of the 1963-64 school year, a personnel officer at each of the eight high schools in the study administered the Vocational and Educational Inventory (VEI: Appendix) to all seniors at his school. Responses to item 3 on the VEI, "How likely are you, really, to go to some college?" served as the basis for identifying senior girls who were unlikely to continue their education. This six-choice item was originally used by Stouffer (23) whose follow-up data indicate that a high proportion of those students who answer "definitely will go" or "almost sure to go" on this item do, in fact, attend college. Less than half of those students who respond that they are "likely" to attend college actually continue their education, however, and only about six per cent of those who check the two remaining categories go on to school.

Based on Stouffer's findings, therefore, the girls who selected any of the four "least likely" choices on VEI item 3 were classified as being unlikely to attend college. Responses to item 4 on the VEI provided an indication of each subject's primary deterrent to college. Item 4 asks the respondent to select from a list of responses the single most important reason why she may not go on to college.

Screening for ability was based upon the student's composite score on the Iowa Tests of Educational Development (ITED) and her cumulative high school grade-point average (GPA). From among the "unlikely to attend college" girls, only those who had an ITED composite score at or above the

63rd percentile on the publisher's norms and a cumulative GPA above 2.30 were selected to participate in the study. The median ITED composite score for the selected sample ranked at the 79th percentile and the median GPA was a 2.94.

At each school a list was compiled of the "unlikely to attend college" girls who met the selection criteria on both the ITED and GPA measures. This list was submitted to the cooperating counselor, who was asked to identify any girl whom he felt should not be seriously considering college attendance. Two potential subjects were excluded on grounds of personal problems and emotional instability.

Experimental Design

Qualified subjects at each school were randomly assigned to one of eight groups on the basis of their likelihood of attending college, as indicated by their choice of response (3, 4, 5 or 6) on item 3 of the VEI. The eight groups and the treatment conditions for each group are summarized in Table II.

It can be seen from Table II that the treatment phase of the study was carried out during a two-week period in each school. The initial session was held on Monday of the first week for those groups (groups 3-7) in which the treatment consisted of a combination of two experiences. The second session was held on either Monday or Tuesday of the following week, as were the counseling interviews with the groups who received only individual or group counseling (groups 1 and 2).

The College Questionnaire attitude scale (CQ: Appendix) was administered by the author to all subjects on Thursday of the second week, which was either two or three days after the subject's final viewing of the film or counseling interview. Each cooperating counselor received a

Table II

Schedule of Treatments and Testing

Treatment	Monday Week 1	Mon. - Tues. Week 2	Thursday Week 2	Mar. 25 to Apr. 1
1. Indiv. Couns.		Counsel	*CQ	**CAP
2. Group Couns.		Counsel	CQ	CAP
3. Film + Ind. Couns.	Film	Counsel	CQ	CAP
4. Film + Group	Film	Counsel	CQ	CAP
5. Ind. + Film	Counsel	Film	CQ	CAP
6. Group + Film	Counsel	Film	CQ	CAP
7. Film + Film	Film	Film	CQ	CAP
8. Control			CQ	CAP

*College Questionnaire (Appendix). This instrument was used as a criterion measure of attitude change. It is described below in the "Evaluation" section.

**College Application Plans form (Appendix). This form served as a second criterion measure and it is also described in more detail below. The March 25 to April 1 period during which it was administered was from three to four and one-half months after the treatment phase in seven of the eight schools, and about two months after the treatment phase in the remaining school.

schedule which listed the participants from his school and the detailed procedures to be followed on each day of the treatment phase of the study. The treatment phase of the study was completed during the months of November and December in seven of the eight schools. In the eighth school this phase was carried out during the last two weeks in January, 1964.

Like Getting Out, the motion picture employed in this study, is described in Chapter II. The content of this nineteen-minute color film is designed to appeal to the emotions, as well as to the intellect. Its introductory message illustrates the short duration of a four-year college program in comparison to the remainder of one's life span and emphasizes the potential importance of the four-year post-high school period. The film then dramatizes the unhappy vocational experiences of Bill, a capable boy who accepts unskilled employment following his high school graduation. It eventually becomes clear to Bill that a college education is the key to happiness and vocational success. While Bill is dozing at work, his animated dream sequences reveal that it is possible to obtain financial aid for college and illustrate several inducements of a college education. The closing scene shows Bill back at his grimy, tedious job; and as the final shot of Bill begins to fade out, the words "Is this what you want?" are superimposed on the picture. Like Getting Out was shown to small groups of about ten girls at a time in the current study. Consequently, immediately before the initial showing each girl was given a brief note "To the Student" (Appendix) explaining why she was called from class to view the film.

The individual-counseling interviews were generally structured, but in all cases allowance was made for personal adaptations by the counselors within the general limits imposed by the structuring. Several preliminary meetings were held with each counselor in which the purpose and general design of the experiment were outlined. At these meetings the counselors

were asked to follow printed instructions in conducting the counseling interviews. These instructions are found in the Appendix on the Counselor's Summary Sheet, which was prepared to give the counselors a brief overview of the project and the duties that they would be expected to fulfill as participants in it. Immediately before or at the beginning of the interview, each girl was given the "To the Student" note and a copy of an information sheet (College Information Sheet: Appendix). This sheet was designed specifically to provide the subjects with information about college admission requirements, costs, and opportunities for financial help. The interviews were structured to center around the counselee's post-high school plans, to indicate to her that ability measures indicate that she is capable of doing successful college work, and to relate her interests and goals to a college education. Possible ways of overcoming obstacles to college attendance for the counselee were also discussed. In order to personalize the message of the film, the counselors were asked to place particular emphasis on the role that college could play in the fulfillment of the counselee's goals, whenever this was appropriate. Each girl's VEI was available for the counselor to use as supplementary information in discussing her vocational plans and goals. At the conclusion of each interview, the counselor filled out a form (Counseling Report Form: Appendix) which indicated the nature of his advice to the counselee and his judgment of the rapport during this interview. One personnel officer per school conducted all counseling interviews in his school. With one exception, the same person who conducted the counseling interviews also was in charge at the film showings.

The group-counseling interviews involved the counselor and the two to four girls in the particular group. These interviews were structured in the same manner as the individual sessions, but, of course, varying

amounts of counselee interaction also occurred within the different groups.

No attempt was made to control the length of the counseling interviews because it was felt that this would introduce an external control which would make the results less applicable to the normal school situation. Following the treatment phase of the study, however, estimates were obtained from each counselor of the average length of the individual sessions and the average length of the group sessions.

Criterion Instruments

Form B of the College Questionnaire (CQ) was one of the two measures of attitude change employed in the study. This instrument is a five-choice, fifty-item Likert attitude scale designed to measure attitudes toward college attendance. Responses to the CQ were scored on a 0-4 basis, so that the maximum possible score was 200. The CQ was constructed to measure attitudes toward college in the study by Edling (5), and it was utilized extensively in that research. A validity study conducted with seventy high school seniors yielded a bi-serial correlation of .80 between their CQ scores and actual college matriculation the following fall.

A word of explanation is called for at this point with regard to the testing procedure that was followed. Edling's finding that pretesting with the CQ may depress post-test scores, and similar evidence from other research (14) led the present investigator to employ an after-only testing procedure. No pretest on the CQ was administered to any group in the present study. Instead, it was originally intended to follow the design proposed by Solomon (20) and infer from Edling's data pretest mean scores and variances for all groups. Pretest data for three of the schools that participated in the current study were obtained from Edling's study. A considerable amount of variance among schools was observed in the present

study, however, as was an apparent discrepancy between the post-tested control group score and the scores obtained by Edling. Because of these factors, the treatment effects were evaluated by comparing the post-test scores of the treatment groups with those of the control group in this study. Pretest means were not inferred from Edling's data.

The second measure of attitude change was obtained through the use of the College Application Plans form (CAP). This two-item questionnaire was administered to all subjects two to four months after the treatment phase to determine if they had applied for admission at any college for the forthcoming school year and, if not, whether they intended to apply subsequently. At preliminary meetings in the fall, all cooperating counselors had agreed not to call in any girls from the film-film or control groups for college counseling until after the administration of the CAP. For this criterion measure, the effectiveness of the different treatments in changing attitudes was analyzed by comparing the number of students in each experimental group who reported that they had applied or intended to apply for college admission with the number who reported they had applied or intended to apply from the control group. The self-report data were taken from the CAP. No follow-up data are available to indicate the correlation between responses on this measure and college matriculation. It is recognized, of course, that a one-to-one relationship does not exist between application for admission to college and actual matriculation. However, within the limitations of available time and resources for this study, reported application for college admission was considered to be the best behavioral measure of changes in attitude that could be obtained.

PRECEDING PAGE BLANK-NOT FILMED

Chapter IV

Findings: Scale-Measured Attitudes

The College Questionnaire (CQ: Appendix) was one of two criterion measures of attitude change employed in the present study. Findings based on the CQ will be reported in this chapter, and those based on the reported plans of each subject regarding actual college attendance will be reported in Chapter V. The CQ is described in the previous chapter.

The mean CQ post-test score for each treatment group is reported in Table III. The mean score for the eight groups range from approximately 140 for the control group and the group-counseling treatment to about 150 for the group who saw the film and were then individually counseled. The analysis of variance summarized in Table IV reveals that there are no significant differences among the mean CQ scores by treatments. It is important to note that the no-treatment control group is also included in the analysis of variance, for this indicates that none of the experimental treatments produced significant changes in the scale-measured attitudes toward college.

Attitude Scores with Treatments Combined.

To test the results for treatments which combined a showing of the film with a counseling interview against the scores for other groups, the data for certain experimental groups were combined. Scores for subjects in Group 1 who were individually counseled were pooled with the scores of subjects who were group counseled (Group 2) to obtain the mean score and variance for all individuals who experienced a single counseling interview. In the same manner, scores for all students in Groups 3-6 (see Table III) were combined to provide data on all subjects who saw the film and were also counseled. These combined data are presented in Table V,

Table III

Mean College Questionnaire Scores by Treatment

Treatment	N	Post-test Mean
1. Individual Counseling	21	145.00
2. Group Counseling	23	139.96
3. Film + Individual Counseling	19	150.05
4. Film + Group Counseling	20	143.35
5. Individual Counseling + Film	20	144.75
6. Group Counseling + Film	19	148.84
7. Film + Film	20	147.15
8. Control (no treatment)	19	140.00
Total	161	144.77
*Film	26	146.12

*Data for this group were taken from a matched group of senior girls in Edling's (5) study with I.Q.'s of 110 or above. The mean score is listed here to permit comparisons with the scores of the groups in this study.

Table IV

*Analysis of Variance for Mean Scores by Treatments and Schools

Source of Variance	Fixed or Random	df	Adj. SS	Adj. MS	Variance Components	F Ratio
Treatments	F	7	1933.1	276.158	T + TS + W	.689
Schools	R	7	5449.5	778.500	S + W	1.635
TS		49	19634.0	400.694	TS + W	.842
Within		97	46182.1	476.104	W	

*Since schools represent a random variable, the interaction term was employed as the error term in computing the F-ratio for treatments in all analyses which control for variance due to schools. This follows the rationale of Green and Tukey (6).

along with data from the control group. An analysis of variance by treatments and schools revealed that there are no significant differences between the mean scores reported in Table V.

Table V

Mean Attitude-Scale Scores With Treatments Combined

Treatment	N	Mean Score
Film plus Counseling (Groups 3-6)	78	146.68
Single Counseling Interview (Groups 1-2)	44	142.36
Control	19	140.00

Comparison with Edling's data. It will be recalled that in Edling's research a single showing of this same film to non-pretested subjects produced a six-point gain in College Questionnaire scores, and this gain was significant at the .01 level. Edling's total non-pretested sample (both sexes, college-bound and non-college-bound, at all ability levels) consisted of 452 subjects. Actually, the mean gains registered by the film-plus-film and film-plus-counseling groups in the present study were very slightly greater than the six-point gain made by Edling's subjects. However, comparable gains in the present research were not significant. The failure of treatments employing the film to produce significant gains in this research may be attributed to the small sample size in each group.

Attitude Scores by Primary Deterrent to College.

It was reported in Chapter III that a measure of each subject's primary deterrent to college was obtained from item 4 on the VEI. Slightly less than half of the subjects checked the response "I cannot go to college for financial reasons" or gave a written reply on the "miscellaneous" response which indicated that lack of money was their chief obstacle to college attendance. The remaining girls either checked one of the other responses or indicated that lack of motivation would be their primary deterrent by their written reply to the "miscellaneous" response. These groups are subsequently referred to as the "low-finance" and "low-motivation" groups.

An analysis of variance (Table VI) for mean CQ post-test scores by primary deterrent to college and treatments revealed that low-finance subjects held significantly more favorable attitudes toward college than did low-motivation subjects. The difference between the mean score of 152.46 for the low-finance group and the score of 138.01 for the low-motivation group was significant at the .001 level of confidence. The significant F-ratio for interaction (Table VI) and the mean CQ scores by treatment and primary deterrent (Table VII) reveal that certain treatments had differential effects on the low-motivation and low-finance groups.

It can be seen from Table VII that, among low-motivation subjects, those who experienced a combination of the film and individual counseling registered mean attitude-scale scores from twelve to twenty-two points higher than the mean scores of the other groups. The mean scores for the low-motivation group were compared two-by-two by ordering the means in magnitude and comparing extremes using the t-test. In the low-motivation group the extreme difference is between the mean for the group which

Table VI

Analysis of Variance by Primary Deterrent to College and Treatments

Source of Variance	df	Adjusted Sum of Squares	Adjusted Mean Square	F
Deterrent	1	8259.7	8259.700	21.495***
Treatments	7	2000.0	285.714	.744
DT	7	7289.2	1041.314	2.710*
Within	145	55716.7	384.253	

***Significant at .001 level *Significant at .05 level

Table VII

Mean CQ Scores by Treatment and Primary Deterrent

Treatment	Deterrent			
	Low-Motivation		Low-Finance	
	N	Mean	N	Mean
Individual C	10	135.90	11	153.27
Group C.	12	126.75	11	154.36
*Indiv. (with film)	24	149.21	15	144.33
*Group (with film)	20	137.55	19	154.95
Film + Film	8	132.25	12	157.08
Control	11	132.82	8	149.88
Totals	85	138.01	76	152.46

* Serial order disregarded

received individual counseling with the film and the group which received group counseling only. The difference of 22.46 mean points was significant at .02 level (11 degrees of freedom). All other differences were not significant.

A comparable analysis of the differences between the means for the low-finance group was conducted but revealed no significant differences.

Clearly these data are not sufficient to explain the precise differences in responsiveness to the various treatments within each of the two deterrent groups. Some possible implications for future research may be drawn from these data, however. These implications will be presented and discussed in the last chapter of this report.

Individual and Group Counseling

One secondary objective of the study was to attempt to determine the comparative effectiveness of individual and group counseling in building favorable attitudes toward college in the target group. Mean scores for group-counseled and individually-counseled subjects are reported in Table VIII.

Table VIII

Mean Scores by Counseling Approach

Group	N	Mean Score
Individual Counseling	21	145.00
Group Counseling	23	139.96
Control	19	140.00
*Individual (with film)	39	147.33
*Group (with film)	39	146.03

*Serial order disregarded in this table.

The data in Table VIII indicate that among the total sample there were slight differences in CQ scores in favor of individually-counseled students over group-counseled subjects. However, an analysis of variance by treatments and schools revealed that these comparatively small differences in favor of the individually-counseled subjects do not approach statistical significance. Based upon counselor estimates, the average length of the counseling interviews was approximately 21 minutes for individual interviews and 29 minutes (about 9 minutes per student) for group interviews.

When the total sample in Table VIII is broken down into low-finance and low-motivation subgroups (see Table VII), it can be seen that larger differences exist in scores by counseling approach within these subgroups than within the total sample. However, these data do not reveal precisely what differences in responsiveness to treatment, if any, exist within the two deterrent groups.

Utilization of the Film

Other secondary objectives of the study in addition to the analysis by counseling approach involved investigations of the effects of serial order of presentation and a second showing of the same film on subjects' attitudes toward college. The effects of a second showing of the film were analyzed by comparing the mean score of the students who saw the film twice in this study to that of Edling's subjects who saw it once. The data for these treatments are included in Table III at the beginning of this chapter. The mean score for the two-showing group (147.15) is about one point higher than the score of the one-showing group (146.12) reported by Edling. It should again be mentioned that the large amount of variance by schools in this study raises doubts about the direct

comparability of a sample from Edling's study with one from this study. However, the evidence that is available indicates that very little influence can be attributed to the second showing of the film.

Combined data by serial order of presentation of the film and counseling interview are presented in Table IX.

Table IX

Mean Scores by Order of Presentation

Order of Presentation	N	Mean
Film, then counseling	39	146.62
Counseling, then film	39	146.74

The scores of the film-first and counseling-first groups are identical, and it is apparent that the differences in attitude-scale scores attributable to serial order of presentation are negligible.

Chapter V

Findings: Applications for Admission to College

A second criterion measure of attitude change employed in the study was the College Application Plans form (CAP: Appendix). This form was administered to all subjects in late March or early April, 1964, to provide a measure of whether they had applied for college admission at that time and, if not, whether they intended to apply subsequently.

Responses to the CAP by treatment group are reported in Table X. Because of the small observed and expected frequencies in the "have applied" and "intend to apply" categories, it is not appropriate to employ a chi-square test with these data. It is clear from the data in Table X, however, that the differences between treatment groups were not large.

Assuming the observed differences in Table X are reliable, it is noteworthy that the number and proportion of students in the control group who applied for admission to college is smaller than the number and proportion who applied from any of the seven experimental groups. This suggests the possibility that each treatment may have influenced one or two students to apply for college admission, but the evidence is not sufficient to conclude that this was indeed the case.

The data for certain treatment groups were again combined (Table XI) to compare the results for subjects who saw the film and were counseled to the results for students who were counseled but did not see the film. A slightly higher proportion of subjects applied from the film-plus-counseling group than from the counseling-only group, but the computed chi-square value is far short of the figure that is required for statistical significance.

Table X

College Application Plans by Treatment

Treatment	N	CAP Response: Have applied	Intend to apply	Have not and do not
1. Individual Counseling	*26	6	5	15
2. Group Counseling	*31	5	11	15
3. Film + Individual	21	6	4	11
4. Film + Group	21	5	4	12
5. Individual + Film	23	4	5	14
6. Group + Film	22	5	4	13
7. Film + Film	20	5	2	13
8. Control	20	3	3	14
** Totals	184	39	38	107

*Subjects from treatment Groups 5 and 6 who received counseling but were absent for the film showing were included in Groups 1 and 2 in this analysis. This accounts for the relatively large N's in these groups.

**The N's for College Application Plans data are slightly larger than for College Questionnaire data because of absences at the time when the CQ was administered.

Table XI

College Application Plans With Treatments Combined

Treatment	CAP Response: Have applied	Intend to apply	Have not, do not	Total
Film plus counseling (Groups 3-6)	20	17	50	87
Single interview (Groups 1-2)	11	16	30	57
Total	31	33	80	144

Computed 2 x 3 chi-square of 1.46 is not significant.

Applications by Primary Deterrent to College

The totals for applications by primary deterrent (Table XII) reveal that the proportion of girls from the low-finance group who applied for admission to college was considerably higher than the proportion of girls who applied from the group with low motivation for college. A chi-square test (Table XIII) of applications by primary deterrent yields a value of 16.80, which is significant at the .001 level of confidence. It was noted in Chapter IV that the low-finance group held significantly more favorable scale-measured attitudes toward college than did low-motivation subjects, and the data on applications clearly indicates that they also applied for college admission in significantly greater numbers.

It can be seen from Table XII that the numbers of low-finance subjects who had applied and who intended to apply for admission from the four counseled groups were consistently larger than the corresponding numbers from the groups that were not counseled (i.e., the film-plus-film and control groups). Yet, the numbers who have not applied for admission and do not intend to apply are nearly the same for all six groups of low-finance subjects. Although this comparison is based upon such small numbers of applications that a valid statistical comparison between groups is not possible, the data do suggest that the counseling interviews may be influencing a number of low-finance subjects to apply for college admission.

It will be recalled from the previous chapter that the mean attitude-scale score of low-motivation students who saw the film and were individually counseled was from twelve to twenty-two points higher than the mean score of the other low-motivation groups. On the applications for admission measure, however, there is only a slight difference between the number of applications from the film-plus-individual-counseling group and

Table XII

Applications by Primary Deterrent and Treatment

Treatment	Deterrent					
	Low-Motivation			Low-Finance		
	Have	Intend	Have not, do not	Have	Intend	Have not, do not
Ind. C.	0	3	9	6	2	6
Group C.	1	5	10	4	6	5
*Ind. (with-film)	3	5	19	7	4	6
*Group (with-film)	2	2	18	8	6	7
Film + Film	2	0	7	3	2	6
Control	1	1	8	2	2	6
Totals	9	16	71	30	22	36

*Serial order disregarded. Note that N's in these groups are larger, therefore.

Table XIII

Chi-square for Applications by Primary Deterrent

Reason	CAP Response***		
	Have applied	Have not applied	Total
Low-Finance	30	58	88
Low Motivation	9	87	96
Total	39	145	184

***Chi-square of 16.80 is significant at .001 level

the number from the other low-motivation groups. The attitude-scale data also revealed that, among students in the individual-counseling-plus-film treatment, the mean score of low-motivation subjects was approximately five points higher than that of low-finance subjects. Yet, it is clear from Table XII that the number and proportion of low-finance students who applied for college admission from this treatment was much greater than the number and proportion of applicants from among the low-motivation subjects in this same treatment. In fact the data suggest that the experimental treatments influenced the latter group very little when it actually came to applying for college admission.

Individual and Group Counseling

College Application Plans data for individually counseled and group-counseled subjects are reported in Table XIV. It is apparent that there were only slight differences in applications by counseling approach both

Table XIV

Applications by Counseling Approach

Approach	N	CAP Response		
		Have applied	Intend to apply	Have not, do not
Indiv. C.	26	6	5	15
Group C.	31	5	11	15
*Indiv. (with film)	44	10	9	25
*Group (with film)	43	10	8	25

*Serial order disregarded

in the counseling-only treatments and in the film-plus counseling treatments. Among the total sample, then, there clearly was little difference between individual counseling and group counseling in terms of their effects in influencing subjects to apply for admission to college. Similarly, the data on applications by primary deterrent (Table XII) indicate that there was little difference in effectiveness between group counseling and individual counseling within either the low-finance group or the low-motivation group.

Serial Order of Presentation

Table XV presents data on college applications by contrasting serial orders of presentation of the film and counseling interview.

Table XV

Applications by Order of Presentation

Order of Presentation	N	CAP Response		
		Have Applied	Intend to apply	Have not and do not
Film, then couns.	42	11	8	23
Couns., then film	45	9	9	27

The differences in the distributions of the two groups are not statistically significant when tested by chi-square.

No data were available from the Edling study on the post-treatment college application plans of his subjects who experienced only one showing of the film. Therefore, it was not possible to test for differences in applications for admission between subjects who saw the film once and

those who saw it twice.

Attitude-Scale Scores and Applications for Admission

A tri-serial correlation was computed in order to assess the relationship between the two criterion measures. Based upon the scores of the 158 subjects who completed both measures, the tri-serial correlation between CQ scores and CAP responses was.42. The discrepancy between this figure and the .80 bi-serial correlation between CQ scores and actual college matriculation obtained by Edling can be explained by the fact that the subjects in the current study were a much more homogeneous group in terms of achievement and likelihood of attending college than were Edling's subjects.

Table XVI reports applications for admission by CQ scores when a mean CQ score of 150 is used as the critical dividing score. These figures reveal that thirty-six per cent of the students who scored 150 or above on the CQ had applied for college admission. On the other hand, only eleven per cent of the subjects who scored below 150 had applied for admission. A 2 x 3 chi-square test of applications by attitude-scale score yields a value of 24.31, which is significant at the .001 level of confidence.

Table XVI

Applications by Attitude-Scale Score

Mean CQ Score	N	CAP Response		
		Have applied	Intend to apply	Have not, do not
150 & above	70	25	21	24
Below 150	88	10	14	64

PRECEDING PAGE BLANK-NOT FILMED

Chapter VI

Summary and Implications

The primary objective of the study was to attempt to determine the effects of several selected film and counseling experiences on the attitudes toward college of capable high school senior girls who indicate that they are unlikely to attend college.

The sample was composed of 191 high-ability girls who were screened from approximately 2000 senior girls in eight metropolitan high schools. Each subject indicated on a preliminary questionnaire that she was unlikely to attend college and identified her primary deterrent (either low finances or low motivation for college). Several selection criteria were employed to insure that subjects would have a good chance of academic success in college.

The following experimental treatments were employed: (1) a counseling interview, either group or individual; (2) a group or individual interview plus a showing of a film designed to change attitudes toward college, either in film-counseling or counseling-film serial order; and (3) two showings of the film. Including the specific variations of the above treatment categories, there were seven experimental groups and a no-treatment control group.

Criterion measures consisted of (1) attitudes toward college as assessed by the College Questionnaire, a fifty-item, 200 point Likert scale; and (2) applications for admission to college following the treatment phase of the study.

The principal findings of the study were as follows:

1. Girls who indicated that lack of money was their primary deterrent to a college education held significantly (.001 level of significance)

more favorable scale-measured attitudes toward college than did those who indicated that motivational factors were their chief obstacle. The low-finance group also subsequently applied for college admission in significantly (.001 level of significance) greater numbers.

2. Among low-motivation subjects only, the mean attitude-scale score for subjects who saw the film and were individually counseled was significantly (.02 level) greater than that of group-counseled subjects, and several points higher than the mean of every other low-motivation group. There was little evidence, however, that any treatment actually influenced low-motivation subjects actually to apply for college admission.

3. Among low-finance subjects, the data revealed a consistent trend for students in the groups that were counseled (whether or not they saw the film) to apply for college admission in greater numbers than students in groups that were not counseled. Because of the small number of low-finance students who were not counseled, the difference in applications between counseled and non-counseled students could not be subjected to a valid statistical test. Therefore, the reliability of this difference is not known.

4. When treatment effects were analyzed for all subjects within each treatment (rather than for the low-finance and low-motivation groups separately), there were no significant differences between treatment groups in either applications for college admission or post-treatment attitude-scale scores. None of the experimental groups scored higher than the control group on either criterion measure.

5. The mean attitude-scale scores for subjects who viewed the film twice was of approximately the same magnitude as that registered by subjects who viewed the film once in earlier research by Edling (5).

6. No significant differences in criterion scores were attributable to the variable of serial order of presentation of the film and counseling interview.

Implications

In general, the findings of the project are not sufficiently conclusive to permit clear-cut recommendations of procedures designed to influence more capable students to attend college. However, the data do reveal that capable girls whose primary deterrent to college is a lack of money differ distinctly from those with low motivation for college in terms of both scale-measured attitudes toward college and applications for college admission. Furthermore, there is some evidence that these two groups of individuals differ from one another in their responsiveness to the experimental treatments that were employed. The difference in attitudes between these groups of subjects and their apparent variations in responsiveness to the experimental treatments would appear to indicate that differentiated college-counseling programs are appropriate for low-finance and low-motivation students.

With low-finance subjects, none of the treatments produced large changes in scale-measured attitudes, but there was evidence that counseling may have influenced some subjects of this type to apply for college admission. The mean attitude-scale score of low-finance subjects in the control group (approximately 150, as contrasted with approximately 133 for the low-motivation group) suggests that many low-finance students were well motivated for college before viewing the film or being counseled. To influence more of these well-motivated low-finance students to attend college, therefore, the cricial variable would seem to be financial information. They have sufficient motivation for college, but

they need more money or at least information that assures them that they have or can obtain adequate funds to allow them to attend college. Thus, a finance-oriented counseling program should be an effective procedure for meeting their most pressing college-counseling needs. Although data from this study are not sufficient to suggest the relative effectiveness of individual vs. group counseling with low-finance subjects, it seems reasonable that this finance-oriented program could be conducted as well in groups as it could on an individual basis. Group procedures would allow for a minimum expenditure of counselor time with no apparent loss of effectiveness.

To influence low-motivation students to attend college may present a different and more complex problem than with low-finance subjects. The data from this project are not conclusive, but they do provide evidence that the film-plus-individual counseling treatment may be successfully employed to raise the scale-measured attitudes of low-motivation subjects to a level at which a large proportion of capable students typically apply for college admission (approximately 150 on the College Questionnaire). However, present data suggest that even though low-motivation students may hold more favorable attitudes toward college after experiencing a combination of the film and an individual counseling interview, additional experiences must be provided for these students to motivate them actually to apply for college admission. Further research is necessary to identify additional experiences that may be effective in providing this motivation.

Bibliography

1. Berdie, R. F. After High School--What? Minneapolis: University of Minnesota Press, 1954.

2. Chauncey, H. "Identification, Encouragement, and Development of Talented Youth." in D. Wolfle, et al. Human Resources: The Needs and Supply. Pittsburgh: University of Pittsburgh Press, 1951.

3. Cole, C. C. Encouraging Scientific Talent. New York: College Entrance Examination Board, 1956.

4. Daughtry, A. A. "The Kansas Study of Postgraduation Activities of High School Seniors," in N. Brown (ed.) Higher Education: Incentives and Obstacles. Washington: American Council on Education, 1960.

5. Edling, J. V. A Study of the Effectiveness of Audio-Visual Materials When Prepared According to the Principles of Motivational Research. N.D.E.A., Title VII, Mimeo, 1963.

6. Green, B. F., and Tukey, J. W. "Complex Analyses of Variance: General Problems." Psychometrika, 25:127-152, 1960.

7. Green, Edith. "The Present Need for Federal Aid to Education." High School Journal, 45:136-142, 1962.

8. Havighurst, R. J. American Higher Education in the 1960's. Columbus: Ohio State University Press, 1960.

9. High School-College Relations Committee. Fact Sheet 1963-64. Eugene, Oregon: Oregon State System of Higher Education, 1963.

10. High School-College Relations Committee. Your Education. Eugene, Oregon: Oregon State System of Higher Education, 1963.

11. Hoban, C. F., and Van Ormer, E. B. Instructional Film Research 1918-1950. Port Washington, N. Y.: Office of Naval Research, 1950.

12. Hollinshead, B. G. Who Should Go to College? New York: Columbia University Press, 1952.

13. Hollis, A. P. "The Effectiveness of the Motion Picture Used as an Introduction or as the Summary." in F. Freeman (ed.) Visual Education. Chicago: University of Chicago Press, 1924.

14. Hovland, C. I., Lumsdaine, A. A., and Sheffield, F. D. Experiments on Mass Communication. Princeton, N. J.: Princeton University Press, 1949.

15. Little, J. K. "Wisconsin Study of Academically Talented Graduates: Their College Plans and Progress." in N. Brown (ed.) Higher Education: Incentives and Obstacles. Washington: American Council on Education, 1960.

16. Lowe, W. T. "Wasted Leadership Potential." High School Journal, 45:56-58, 1961.

17. May, M. A., and Lumsdaine, A. A. Learning from Films. New Haven: Yale University Press, 1958.

18. Phearman, L. T. "Comparisons of High School Graduates Who Go to College with Those Who Do Not." Journal of Educational Psychology, 40:405-414, 1949.

19. Plaut, R. L. Blueprint for Talent Searching. New York: National Scholarship Service and Fund for Negro Students, 1957.

20. Solomon, R. L. "An Extension of Control Group Design." Psychological Bulletin, 46:137-150, 1949.

21. Staudohar, F. T., and Smith, R. G. "The Contribution of Lecture Supplements to the Effectiveness of an Attitudinal Film." Journal of Applied Psychology, 40:109-111, 1956.

22. Stivers, E. H. "Motivation for College in High School Boys." School Review, 66:341-350, 1958.

23. Stouffer, S. A. Your Educational Plans. (Counselor's Manual) Chicago: Science Research Associates, 1959.

24. Sullivan, H. J. The Effects of Selected Experiences on Capable Girls' Attitudes Toward College. University of Oregon: Unpublished Doctoral Dissertation, 1964.

25. Wolfle, D. America's Resources of Specialized Talent. New York: Harper and Brothers, 1954.

26. Wright, W. W. "Why Capable Indiana High School Students Do Not Continue Their Education." in N. Brown (ed.) Higher Education: Incentives and Obstacles. Washington: American Council on Education, 1960.

APPENDIX

A complete listing of all raw data from this project and a more detailed report and analysis of the findings are found in the reference by Sullivan (24) that is listed in the bibliography.

Contents

	Page
1. Counselor's Summary Sheet	41
2. Vocational and Educational Inventory	42
3. Note to the Student	43
4. College Information Sheet	44
5. Counseling Report	46
6. College Questionnaire	47
7. College Application Plans	48

PRECEDING PAGE BLANK-NOT FILMED

Counselor's Summary Sheet

The Teaching Research Center of the Oregon State System of Higher Education is conducting this project in an attempt to identify a practical, effective method of reducing the number of capable students who drop out of school following high school graduation. The project is designed to include only senior class girls who achieved a composite score at or above the 63rd percentile on the national norms for the Iowa Tests of Educational Development and whose responses on an objective questionnaire indicate that they are not likely to attend college. Learning experiences of such a nature that they can readily be replicated in any school system will be employed with these girls in order to investigate which experience is most effective in dealing with the dropout problem between high school and college.

Eight schools and a total of approximately 200 subjects will participate in the project. As a cooperating counselor, you will be asked to administer two very brief questionnaires to all senior girls, supervise two showings of a sixteen-minute film, and conduct a total of no more than twelve individual and three group counseling sessions. These sessions will be related to the topic of further education beyond high school for the counselees, and it is anticipated that you would normally conduct them in your scheduled contacts with these students. Because of the number of students and schools involved in the project and the need for standardized procedures to insure reliability of results, your cooperation is asked in incorporating the following suggestions into each of the counseling sessions which you conduct:

1. Provide the counselee with a College Information Sheet at the beginning of the session and allow sufficient time for her to read it at this time. Allow her to keep this sheet.

2. Discuss the counselee's post-high school plans.

3. Point out to her that ability tests indicate that she is capable of doing successful college work.

4. Explore her interests and goals and whenever possible, relate them to a college education or a specific training program.

5. Discuss the obstacles that stand in the way of a college education for the counselee, and explore possible ways for her to overcome these obstacles and attend college.

The project director, a staff member from Teaching Research will make every effort to cooperate with you and your school staff and to avoid disrupting the school schedule. Following the completion of the project, you will be furnished with a summary of the results for your own information and use.

If you have questions relative to the project at any time, please direct your inquiries to:

(Investigator's name and address were listed here.)

Vocational and Educational Inventory

Name _____ Date _____

1. Most young people daydream about the kind of work they will do when they are adults. What kind of work would you most like to do if you had the opportunity and ability? Describe it in the space below.

_____

_____

2. Of course, there can be a big difference between a person's daydreams and what he or she really expects to do. After you finish your schooling and have some job experience, what kind of work do you really expect to be doing? Tell the kind of work and then describe it in the space below. _____

_____

The last two questions concern your plans for further schooling after high school. College for the purpose of these questions means either a junior college, four-year college, school of nursing, or technical institute. It does <u>not</u> mean a barber or beauty college, secretarial or art school or any other school which takes less than two years to complete.

3. How likely are you, really, to go to some college? Mark an X in one blank only.

A. ____ Definitely will go
B. ____ Almost sure to go
C. ____ Very likely to go
D. ____ Rather likely to go
E. ____ Unlikely to go
F. ____ Definitely will not go

4. There are many reasons why young people do not continue on for further schooling after high school. If you marked choice C, D, E or F on item 3 above, there is at least some chance that you may not go on. Please indicate what you consider to be the single most important reason why you will not or may not go on to college by marking the appropriate statement below. Mark one blank only. (Do not answer this question if you marked choices A or B on item 3 above.)

A. ____ College is not related to my future goals.
B. ____ I do not like school or studying.
C. ____ I am married or plan to be married by next year.
D. ____ My parents do not want me to go to college.
E. ____ My high school grades are too low.
F. ____ I can not go to college for financial reasons.
G. ____ Other (If some other reason is more important than any of those listed above, please indicate that reason here.)

_____

_____

_____

Note to the Student

To the student:

You are among a group of students from several high schools who have been selected to participate in a research project sponsored by the U. S. Office of Education in Washington, D. C. The purpose of this research is to investigate ways to make American education continually more effective. Students participating in this project will either see a film twice, talk with a counselor, or see a film and talk with a counselor. Because of your good academic record, your counselor has indicated that he would be contacting you during the year regarding your plans for further education. To facilitate the early completion of this project, he has agreed to talk with you or show you the film at this time rather than waiting until some later date.

College Information Sheet

This sheet contains information about colleges in the Oregon State System of Higher Education. It is intended to help answer questions that you may have about going to college. Your school counselor or the admissions' officer at the college of your choice can assist you if you have further questions or wish to obtain information about other colleges.

What are the admission requirements?

Oregon residents must have achieved either an accumulative 2.00 (C) grade point average in high school or a score of 880 or higher on the scholastic aptitude test of the college entrance examination board in order to gain admission to the State System Colleges.

How much does it cost?

Typical costs vary according to the school, living accommodations, and personal spending habits. The figures presented below are estimated total annual costs (including board and room, tuition and fees, books and supplies, and personal expenses) for dormitory residents for the 1963-64 school year. In many cases these expenses can be reduced by living in co-ops or off-campus housing or by living at home and commuting.

School	Cost	School	Cost
EOC	$1,274	SOC	$1,152
OCE	1,173	U of O	1,325
OSU	1,321	OTI	1,201
PSC	580 (Board and room not included for PSC)		

What financial help is available?

Student Employment. Most college students earn part or all of their own way. The placement offices at Portland State and OCE, for example, estimate that more than 75% of their students are employed during part or all of the school year, and the vast majority of them also earn toward college expenses during summer vacation. College placement offices make organized efforts to assist students who desire to find work, but new students will find that work is much more readily obtained after they have had an opportunity to familiarize themselves with the local conditions. While employment opportunities are usually available during at least part of the school year for those students who are willing to work, employment cannot, of course, be guaranteed to all who may desire it. In any case, the new student should have sufficient funds to cover the first term's expenses, and she should not rely upon earning more than $300 during her first year unless she is previously assured of more remunerative employment.

Scholarships. Scholarships which cover approximately two-thirds of the cost of tuition and fees at any State System institution are available through the State Scholarship Commission. Special cash awards with a possible annual value of $500 are also awarded by the State Scholarship

Commission to Oregon residents with high academic achievement and financial need. Full tuition and fee scholarships are available to students intending to enter elementary teacher education at the regional colleges. High school seniors in the upper third of their class are eligible to apply for state scholarships.

Each institution offers a variety of other scholarships and local awards are also often available. A single application will place you in contention for all institutional or State Commission scholarships except the special cash awards, for which a separate form is required. Most state scholarships are renewable annually if the student remains in good scholastic standing.

Loans. A number of loan funds have been established at each institution as an aid to students in financing their education. Of particular interest are the National Defense Education Act Loans, which carry a maximum annual valud of $1,000 and are intended to aid able students in need of financial help. Applications for loans should be made to the Dean of Women or the Dean of Men at the college of your choice.

Counseling Report

Counselee's Name _____ Date _____

1. Please check the one statement that most closely describes your advice to the counselee in this session with regard to whether or not she should attend college.

   _____ A. Suggested that she should attend

   _____ B. Did not express an opinion

   _____ C. Suggested that she should not attend

2. Which statement best describes your general approach in this session?

   _____ A. I presented the counselee with information related to her future goals and schooling (an indication of her ability, suggested or required training, possible job opportunities, etc.), and offered my opinions or advice about what she should do.

   _____ B. I presented the counselee with information related to her future goals and schooling, but did not offer my opinions or advice about what she should do.

3. Which phrase do you feel best describes the rapport between you and the counselee in this session? For the purpose of this item, please compare the rapport which you normally have with other counselees to your rapport with the counselee in this session.

   _____ A. Above average

   _____ B. Average

   _____ C. Below average

B

COLLEGE QUESTIONNAIRE

"*College*" for the purpose of this questionnaire means either a Junior College, Four Year College or Technical Institute. It does *not* mean a barber college, beauty, secretarial, or art school or any school which takes less than two years to complete.

Directions: There are *not* any right or wrong answers on this questionnaire. The purpose is to find out how high school students honestly feel about college, so *don't* mark the answer you think others will, but rather mark the one that best tells the way you *really* feel. Answer quickly and frankly, don't think about special cases, and *Please Do Not Omit Any Item.*

All you have to do is read each of the statements below and:

If you agree completely mark the ..... SA (strongly agree)
If you agree in general but want to change it a little ..... a (agree)
If you neither agree nor disagree mark the .. N (neutral)
If you disagree in general but not with everything ..... d (disagree)
If you disagree completely mark the ..... SD (strongly disagree)

	SA	a	N	d	SD
1. A person who goes to college will live a happier and more profitable life than a person who does not go to college	1				
2. It is better for one to work hard now to get a college education than regretting it when it is too late	2				
3. For really top jobs, even 4 years of college is not enough	3				
4. College is worthless unless you are a bookworm or going in a profession in which you are required to have it	4				
5. Although a college education will slow a person up momentarily, he will end up ahead in the long run	5				
6. Twelve years of schooling is enough for anybody	6				
7. A college education not only helps you but also your neighbors and your country	7				
8. In order to have a really bright future, one must have a college education	8				
9. College gives you a feeling of independence that can be attained in no other way because no one can take your education away from you	9				
10. Getting a job after 35 is pretty tough if you don't have a college education	10				
11. I don't think I qualify for college	11				
12. After 4 years of high school, I know all I need to know for my life's plans	12				
13. Right now a college education is the most important thing in the world to me	13				
14. A person can get all the training he needs on the job	14				
15. A person who has a college education is better fit both physically and mentally to cope with the problems of leading a life of his own	15				
16. If you haven't decided on a vocation, you should still go to college to find out what is best for you	16				
17. All I want to do is to get out of school and get a job and be my own boss	17				
18. A college education is so important it should be required like high school	18				
19. I know pretty well what I want to do after high school and it does not require college	19				
20. In this day one cannot expect to work at a job he enjoys and also get good money for it without a college education	20				
21. College is only for those who have good high school records—not for me	21				
22. If college is as bad as high school, I wouldn't be happy there	22				
23. Everyone ought to at least give college a chance	23				
24. College is out for me because I just can't afford it	24				
25. Going to college is one of the best ways of growing up	25				
26. You learn very little more in college than you do in high school	26				
27. I would feel cheated without a college education	27				
28. Just the thought of spending four more stuffy years in a stale old classroom is the worst thing that could happen to me	28				
29. College helps one very much in making a living and becoming a better citizen	29				
30. I don't feel that I have the ability to benefit from college	30				
31. It is useless to waste four years of your life in college	31				
32. There is nothing in college in the field of a career that I want bad enough to spend 4 or 5 years studying for	32				
33. When I get out of high school I'll feel that I'm free and that I want to stay that way	33				
34. College is just a place where you waste time at social gatherings	34				
35. One shouldn't go to college unless he knows what he wants to be	35				
36. By and large, the people who turn to crime are those without a college education	36				
37. There will be many heartbreaking moments for the person who does not have a college education when he is turned down for jobs he really wants	37				
38. Most people don't realize the seriousness of the decision of not going to college	38				
39. A high school diploma is little help when applying for a good job in competition with a college graduate	39				
40. College is for the birds	40				
41. College is not worth the time it takes	41				
42. Almost everyone who has gone to college is glad that he did	42				
43. I do not like the kind of jobs for which college would qualify me	43				
44. If a person probably would be weeded out of college, it is hardly worth trying to make the effort to go	44				
45. I would rather pinch pennies and be hungry now than to be poorly paid and unhappy and a nearly destitute workman of the future	45				
46. There is so much more to life than just working that one should go to college to find out as much about it as possible	46				
47. College is very difficult and really not worth the effort	47				
48. College is meant only for those people who want to be big shots	48				
49. College is only for big shots with a lot of money	49				
50. I don't think I would like college well enough to make myself study	50				

BE SURE YOUR MARKS ARE HEAVY AND BLACK.
ERASE COMPLETELY ANY ANSWER YOU WISH TO CHANGE.

College Application Plans

Name _____ Date _____

College for the purpose of these questions means either a junior college, four year college, school of nursing, or technical institute. It does not mean a barber or beauty college, secretarial or art school or any other school which takes less than two years to complete.

1. Please indicate whether or not you have already applied for admission to college for the 1964-65 school year.

   _____ A. I have applied

   _____ B. I have not applied.

2. If you have not already applied for admission to college, do you intend to apply for admission for the 1964-65 school year? (Do not answer this question if you have already applied.)

   _____ A. I intend to apply

   _____ B. I do not intend to apply.